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EXAMINER

ENGLE, PATRICIA LYNN

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| ART UNIT | PAPER NUMBER |
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3612

DATE MAILED: 05/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/707,745

Applicant(s)

ANGUS ET AL.

Examiner

Patricia L Engle

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/8/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings are objected to because the upper margin is too small. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 6 is objected to because of the following informalities: In line 1, --A-- should be inserted before "weather". Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 14-17 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Regarding claim 14, it is unclear what the difference between the "closure panel", the "opening panel" and the "base panel" is.
6. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. The

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omitted elements are: what elements are necessary to make the structure "adapted to" engage a portion of the closure panel?

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-3, 5-12, 14 (as understood)-16 and 18-20 (as understood) are rejected under 35 U.S.C. 102(b) as being anticipated by Wolff (US Patent 5,489,104).

Regarding claim 1, Wolff discloses a weather strip (26) adapted for installation between a closure panel (8) and a body (16,18) of a vehicle, comprising: a carrier (20) for mounting the weather strip (26); a foundation bulb (30) extending laterally across said carrier (20), with said foundation bulb (30) having an outer wall (28) supported by a plurality of upstanding symmetrical sidewalls (Fig. 4) with said sidewalls being integral with a base (Fig. 4) which is itself integral with said carrier (20); and a contactor bulb (32) supported entirely by said foundation bulb (30), with said contactor bulb (32) having a base (Fig. 3 and 4) which is integral with said outer wall (28) of said foundation bulb (30) and which extends laterally across a

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portion of said outer wall (28) of said foundation bulb (30), with said contactor bulb (30) having an outer contact portion (36,38) for sealingly engaging at least a portion of a closure panel (8).

Regarding claim 2, Wolff discloses the weather strip according to Claim 1, wherein said base of said contactor bulb (32) extends across approximately one-third of said outer wall (28) of said foundation bulb (30).

Regarding claim 3, Wolff discloses the weather strip according to Claim 1, wherein said outer wall (28) of said foundation bulb (30) is generally convex (Fig. 4) when said weather strip (26) is not loaded.

Regarding claim 5, Wolff discloses the weather strip according to Claim 1, wherein the compliance of said foundation bulb (30) in response to a normally directed load is greater than the compliance of said contactor bulb (32) resulting from said load (the contactor bulb includes a reinforcement (32) therefore the foundation bulb is inherently more compliant than the contactor bulb).

Regarding claim 6, Wolff discloses the weather strip according to Claim 1, wherein the sealing force exerted by said weather strip is generally invariant over a predetermined range of compression distances (Wolff discloses that the pressured in the foundation bulb and the contactor bulb can be varied so that the contactor bulb always forms a seal with the closure panel, therefore it would be inherent that the "sealing force exerted by the weather strip is generally invariant over a predetermined range of compression distances").

Regarding claim 7, MPEP 2113 Product-by-Process Claims states that "If the product in the product-by-process claim is that same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art product was made by a different process." The weather

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strip of claim 1 is anticipated by Wolff. The process by which the weather strip is made is not a patentable distinction. However, in column 3, lines 8-10 Wolff discloses that the weather strip could be extruded simultaneously.

8. A weather strip adapted for installation between a closure panel (8) and a body (16,18) of a vehicle, comprising: a carrier (20) for mounting said weather strip about the periphery of a door opening (Fig. 1) in a body of a vehicle; a foundation bulb (30) extending laterally across at least a portion of said carrier (20), with said foundation bulb (30) extending outwardly from said carrier (20), and with said foundation (30) bulb having an outer wall (28) supported by a plurality of upstanding symmetrical sidewalls (Fig. 4) mounted to a base (20, Fig. 4), with said base being integral with said carrier (20); and a contactor bulb (32), supported entirely by said foundation bulb (30), with said contactor bulb (32) having an elevated base which is integral with said outer wall (28) of said foundation bulb (30) and which extends laterally across a portion of said outer wall (28) of said foundation bulb (30), with said contactor bulb (32) having a form-compliant outer contact portion (36,38) supported by symmetrical sidewalls extending from said elevated base, with said outer contact portion (36,38) being adapted to sealingly engage a portion of a closure panel (8), and with said sidewalls of said foundation bulb (30) being more compliant than said sidewalls of said contactor bulb (the contactor bulb includes a reinforcement (32) therefore the foundation bulb is inherently more compliant than the contactor bulb), such that the configuration of said contactor bulb (32) will remain relatively invariant as said sidewalls of said foundation bulb deform in response to a load imposed body opening panel.

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Regarding claim 9, Wolff discloses the weather strip according to Claim 8, wherein only said form-compliant outer contact portion (36,38) of said contactor bulb is adapted to engage a closure panel (8) which is closed against said weather strip.

Regarding claim 10, Wolff discloses the weather strip according to Claim 8, wherein said carrier (20) comprises a U-shaped armature (Fig. 2) having an extruded cover (Fig. 2) comprising said foundation bulb (30) and said contactor bulb (32).

Regarding claim 11, Wolff discloses the weather strip according to Claim 10, wherein said carrier (20) further comprises a plurality of fin seals (24) for engaging and positioning said carrier (20) upon a flange (14) of said door opening panel.

Regarding claim 12, Wolff discloses the weather strip according to Claim 11, wherein said fin seals (24) being arranged such that said carrier is adapted to be offset toward the interior of a vehicle to which said weather strip is attached (Fig. 2).

Regarding claim 14, Wolff discloses a sealing system for a vehicle, comprising: an opening panel (8) incorporated within a vehicle; a closure panel (10) adapted to cooperate with said opening panel (8) to enclose a portion of the vehicle; and a weather strip (26) attached to a base panel (14) comprising a first one of said opening panel and said closure panel, with said weather strip (26) comprising; a non-contacting foundation bulb (30) attached to said base panel (via 20), with said foundation bulb (30) having an outer wall (28) comprising a raised support surface (Fig. 2); and a contactor bulb (32) formed integrally with, and extending from, said raised support surface (Fig. 2), with said contactor bulb (32) being supported entirely by said foundation bulb (30), and with said contactor bulb (32) having a form-compliant outer contact

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portion (36,38) for engaging a sealing surface (8) comprising a portion of a second one of said opening panel (8) and said closure panel.

Regarding claim 15, Wolff discloses the sealing system according to Claim 14, wherein said raised support surface of said foundation bulb (30) is supported by compliant, symmetrical sidewalls (28) such that a sealing load imposed upon said form-compliant outer contact portion (36,38) of said contactor bulb (32) will cause said foundation bulb sidewalls to deform equally, while not changing the configuration of said contactor bulb, so as to allow said form-compliant outer contact portion of said contactor bulb to remain in contact with said second one of said opening panel and said closure panel (Wolff discloses that the pressure in the foundation bulb and the contactor bulb can be varied so that the contactor bulb always forms a seal with the closure panel, therefore it would be inherent that the "said foundation bulb sidewalls to deform equally, while not changing the configuration of said contactor bulb, so as to allow said form-compliant outer contact portion of said contactor bulb to remain in contact with said second one of said opening panel and said closure panel").

Regarding claim 16, Wolff discloses the sealing system according to Claim 15, wherein each of said sidewalls supporting said raised support surface of said foundation bulb (30) is generally convex (Fig. 2, 4).

Regarding claim 18, Wolff discloses a door closure structure (26) adapted for installation between a closure panel (8,10) and a body (14) of a vehicle, comprising: a carrier (20) for mounting the door closure structure (26); a foundation bulb (30) extending laterally across said carrier (20), with said foundation bulb (30) having an outer wall (28) supported by a plurality of upstanding symmetrical sidewalls with said sidewalls being integral with a base (Fig 2) which is

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itself integral with said carrier (20); and a contactor bulb (32) supported entirely by said foundation bulb (30), with said contactor bulb (32) having a base which is integral with said outer wall (28) of said foundation bulb (30) and which extends laterally across a portion of said outer wall of said foundation bulb (30), with said contactor bulb having an outer contact portion (36,38) for engaging a portion of a closure panel (8).

Regarding claim 19, Wolff discloses the door closure structure according to Claim 18, with said structure being adapted to be mounted upon a door opening panel (14), for sealingly engaging substantially the entire periphery of a closure panel (8).

Regarding claim 20, Wolff discloses the door closure structure according to Claim 18, with said structure being adapted to resiliently engage a portion of a closure panel (8).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claim 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Wolff.

Wolff discloses the sealing system according to claim 15. Wolff does not disclose reduced thickness portions which control the deformation of the side walls of the foundation bulb. The Examiner takes Official Notice that it is well known in the art to use reduced thickness portions to control where elements will deform. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include reduced thickness portions on the sidewalls of the foundation bulb to control the location of the deformation of the foundation bulb. The motivation would have been to know the deformation characteristics of the foundation bulb to be able to control the deformation of the weather seal.

12. Claims 4, 9 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Wolff in view of Willet (US 2002/0152687, filed Aug. 20, 2001).

Wolff discloses the weather seal of claims 1, 8, 10 and 15.

Wolff does not disclose that the outer contact portion of the contactor bulb is convex (claim 4) and that the weather seal has an auxiliary seal.

Willet discloses a weather seal with a foundation bulb and a contactor bulb in which the contact portion of the contactor bulb is convex and wherein the carrier includes an auxiliary seal.

Wolff and Willett are analogous art because they are from the same field of endeavor, i.e., double bulb weather seals.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to make the contact portion of the contactor bulb convex as it would merely involve the alternate

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utilization of an equivalent contact means to achieve the same exact function and to include an auxiliary seal.

The motivation for providing the auxiliary seal would have been to provide a trim seal for the weather strip as taught by Willett.

Therefore, it would have been obvious to combine Willett with Wolff to obtain the invention as specified in claims 4 and 13.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art discloses other double bulb weather strips.


14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L Engle whose telephone number is (703) 306-5777.

The examiner can normally be reached on Monday - Friday from 8:00 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Glenn Dayoan can be reached on (703) 308-3102. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Patricia L Engle
Examiner
Art Unit 3612

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May 14, 2004